Berg states that for many years it was held that ulcerative endocarditis complicating gonorrhœa was due to a mixed infection with some other organism than the gonococcus. Since 1894, however, many competent observers have reported cases in which only the gonococcus was found in the blood and on the cardiac vegetations. Councilman, Gluzinsky, and Leyden have reported such cases. One of the most valuable cases was that reported by Thayer and Blumer. Not only was the gonoccoccus found on the heart valves, but it was grown in pure culture from the blood during life, showing that the gonococcus may pass by means of the blood current to distant parts of the body, and there give rise to infections.

PEDIATRICS.

UNDER THE CHARGE OF

LOUIS STARR, M.D.,
OF PHILADELPHIA,

AND

THOMPSON S. WESTCOTT, M.D.,
OF PHILADELPHIA.

The Micro-organism of Scarlet Fever.—William J. Class (*The Chicago Medical Recorder*, May, 1899, p. 373), referring to the unsatisfactory results of the investigations of Kleim, of Crajkowski, and of other careful observers in isolating a specific micro-organism of scarlatina, concluded that the fault lay with the culture media employed. After various failures he has succeeded in finding a medium on which he has been able almost invariably to obtain, both from the scales and from the throats of scarlatinal patients, the growth of an organism which presents such characteristic features, both in its morphology as well as in its growth, that he believes it to be the specific germ of scarlet fever.

It is a diplococcus resembling, as ordinarily seen on slides made from fresh cultures, a very large gonococcus. This biscuit-shaped appearance is best seen in specimens that have been but slightly stained. In these is also noted a transverse line running through each half of the organism, giving it the appearance of a tetrad. The size varies. It is always considerably larger than the ordinary pus microbe. Lancet-shaped forms, as occur in the pneumococcus, are never met; but streptococcus forms are occasionally, though rarely, observed, as are also single cocci. They have no capsule and show no spores. Specimens from pure cultures are satisfactorily stained by watery solutions of methylene-blue, by carbol-fuchsin, Bismarck brown, and Pitfield's flagellæ stain. They are decolorized by Gram's method, though not to the same extent as the gonococcus, the larger variety holding the stain somewhat better than the smaller.

The culture medium consists of glycerin-agar, to which is added about 5 per cent. by weight of black garden earth, previously sterilized by discontinuous heating. On this medium the scales of a scarlet fever patient are placed with a sterile platinum loop, and the tubes put in an incubator, the temperature of which is kept at about 35° C. Within forty-eight hours to one week small, whitish-gray semi-transparent colonies appear along the track of inoculation and around the scale. On agar-agar, glycerin agar, and gelatin there is no growth, and bouillon is not clouded. Milk does not appear to be affected, but the organism apparently multiplies in it. On potatoes there is no growth.

Rabbits and guinea-pigs were not affected by subcutaneous injection of pure cultures, by scarification and inoculation of the wounds produced, and by intra-abdominal injection.

The germ described has been cultivated from the scales of about thirty cases of typical scarlatina, and has also been found in the throats of these patients and in cases of angina occurring in persons exposed to scarlet fever in whom no eruption appeared, and lastly in the throats of children in a family where one member had typical scarlatina, the children being in normal condition when the culture was made, but subsequently developing a typical rash, in the scales of which the same organism was found.

Enormous Doses of Laudanum Taken by an Infant.—WALTER F. BOGGESS (*Archives of Pediatrics*, May, 1899, p. 358) reports having seen a child of nine months, very small for its age, not weighing more than eight or nine pounds, but bright and well nourished. For six months the mother had been in the habit of giving it laudanum for colic, and had given from four to twenty drops of the drug five or six times a day—a total of one and one-half to two drachms in the twenty-four hours.

While under the influence of the drug the baby was very bright, but during intervals, when the effect had worn off, it would become fretful. Satisfactory recovery followed gradual but rapid withdrawal of the drug.

[It is possible, as suggested by one of those discussing the report, that the laudanum given in this case was what is called "half-strength," which is quite commonly sold across the counter to the laity. Even at this estimate the case is remarkable as showing how large a quantity of the drug a baby opium-habitué can tolerate.—ED.]

Treatment of Anæmia and Athrepsia in Infants by Hypodermatic Injection of Yolk of Egg.—MUGGIA, of Turin (*Revue mensuelle des Maladies de l'Enfance*, May, 1899, p. 240) uses for this purpose the yolk of freshly-laid hen's eggs carefully washed before opening. The yolks are received in a sterile glass vessel, are then weighed and mixed with a third of their weight of physiological solution of sodium chloride. The mixture is then agitated with a glass rod and filtered through absorbent gauze. The resulting liquid is of homogeneous consistence. The initial injection is 1 c.c., and is made beneath the skin of the buttocks or of the lumbar region. There is no local or general reaction, provided the rules of asepsis are carried out and the region of injection is slightly massaged. The quantity is gradually increased till a limit of 10 c.c. is reached. The duration of treatment varies according to the case, but should not be less than 20 injections of at least 5 c.c. each.

According to Muggia's observation, these injections increase considerably the body-weight of athrepsic infants, the percentage of hæmoglobin and the number of red corpuscles, and this much more rapidly than lecithin administered in the same way.

Modifications of the Blood in Scarlatina.—VAN DEN BERG (*Archiv f. Kinderheilkunde*, Band xxv. S. 321) has made a study of the blood changes in twelve cases of scarlatina observed in Baginsky's clinic. He finds that there exists always a hyperleucocytosis which reaches its maximum from the fourth to the sixth day after the onset of the disease, and lasts about thirty days. The degree is variable, but in general the number of leucocytes is two to three times that of the normal. Desquamation or fever exercises no appreciable influence upon the intensity of this leucocytosis.

The number of red corpuscles is increased, independently of the state of the temperature; often during desquamation evidences of degeneration of red corpuscles are observed. Hæmoglobin is at first increased; it then diminishes and subsequently increases again. The influence of fever here is variable—sometimes an increase, sometimes a diminution in the quantity of hæmoglobin. The modifications in the specific gravity of the blood are very variable. The relation between red and white corpuscles is either normal or slightly modified one way or the other.

Morphologically, the increase in leucocytes is made at the expense of polynuclear cells and intermediary forms. Ordinarily one finds 68 to 82 per cent. of polynuclear cells, and 16 to 28 per cent. of mononuclear forms. The number of eosinophiles varies, and ranges between 1, 3, and 8 per cent.

Diffuse Scleroderma Following Scarlatina.—TCHERNOFF (*Wratch*, 1899, No. 4, p. 93) has observed a case of diffuse scleroderma in a young girl as a sequel to a grave scarlatina which had been marked by hyperpyrexia, albuminuria prolonged for three months, endocarditis, and suppurative tonsillitis. The induration of the skin had begun at the acme of the disease upon almost the entire body at the same time, and when first seen by the author, nearly two months after the beginning of the fever, the patient was lying in the gun-hammer position, with all the limbs flexed, and complained of a sensation of being encased. The hands and feet alone were unaffected. The skin presented the appearance and consistence of that of a frozen corpse; the folds being effaced and movement over the deeper parts reduced to a minimum. The face appeared lengthened and its features immovable, the eyelids closing with difficulty. The tongue was thickened and coated, the sense of taste lost, and mastication painful; hearing was disturbed and cutaneous sensibility greatly diminished. The movements of the articulations were extremely limited, partly in consequence of the changes of the skin; but not altogether so, since the ankylosis persisted for a long time after the skin resumed its normal condition. The temperature was slightly subnormal.

The treatment consisted in daily warm baths, with massage and passive movements of the joints; and, later, gymnastics were added. Cure was complete at the end of six months of treatment.

The author has seen scleroderma develop in other children; also in a dyspeptic child of two years after bronchitis, the condition disappearing at the end of a month and a half by the same treatment. Another child, of four months, presented induration of the skin following a grave bronchitis. In this case also the skin returned to a normal condition as the health was re-established. In all these cases the scleroderma was partial; it was never associated with œdema.

Orthoform and Aneson in Painful Mouth Affections of Children.—GÖPPERT (*Jahrbuch f. Kinderheilkunde*, 1899, Heft 1) has used both these drugs with satisfactory results as a local sedative in painful mouth affections of children. The anæsthetic effect lasts about an hour and a half, and the application is best made about twenty minutes before eating. Aneson is applied by means of a wad of cotton to the inflamed mucous membrane, and orthoform may be dusted on by the powder-blower. Both drugs have an unpleasant taste, especially the orthoform.

Treatment of Croupous Pneumonia by Antidiphtheric Serum.—BESSONE (*Annales de Médecine et Chirurgie Infantiles*, February 15, 1899, p. 160), in a series of 100 cases of pneumonia, treated twenty-one by injections of antidiphtheric serum and the remaining seventy-nine by the ordinary methods.

Of the twenty-one thus treated seven reached the crisis prematurely between the third and fourth days of the disease; two on the fourth day, and three on the fifth. In seven, on the contrary, the crisis was retarded. One case died of concomitant tuberculosis. The immediate effect upon the temperature was not constant. Usually a slight elevation of the curve was noted. No effect upon respiration, pulse, or the nervous system was observed. No albuminuria was produced by the injections. The mortality with the patients injected was 4.76 per cent., while among the others it reached 16.45 per cent. He thinks that while no specific action upon the evolution of the pneumonia was shown, the use of the serum aided the organism to throw off the infection and seemed to prevent complications.

[While there seems to be little scientific reason in such a series of experiments from a therapeutic point of view, these observations serve to emphasize the fact, already noted by those who have had any experience in immunizing large numbers of children in hospitals, that the existence of another infectious disease seems to be no contraindication to the use of diphtheria antitoxin when its specific prophylactic or curative effects are desired. They also support the view of those who plead for an early use of antitoxin in cases in which the diagnosis is still in doubt.—ED.]

A Symptom of the Incubating Stage of Pertussis.—ILLOWAY (*Pediatrics*, January 15, 1899, p. 63) has carefully observed two cases of pertussis from their very earliest development, and is thereby led to believe that the period of incubation is a much more protracted one than ordinarily described; that it is not characterized by any febrile movement or evidence of catarrh, and that it would thus remain unrecognizable but for one phenomenon which it presents, and which, perhaps, more extended observations may demonstrate to a certainty to be pathognomonic.

In the first case, a robust girl, aged five years, a slight hacking cough was first noticed not more than four or five times a day, and then only after unusual exertion. The throat and larynx showed nothing abnormal. For two weeks the hack was noticed only in the daytime; then it occurred during the night. About three weeks after the hacking was first noticed the child began to complain of feeling tired, though she was lively and would run about the house, but would very soon become fatigued. At the end of the fourth week the character of the hack suddenly changed and the catarrhal symptoms appeared. The attack was exceedingly severe and prolonged.

In the second case, a girl, aged three years, in perfect health, the hack was present for two weeks, in about the same degree as in the first case. Two or three days later the catarrhal stage was fully developed. The disease here ran its course in a very mild form.

The author regards this hacking cough as a true pathognomonic phenomenon of the entrance into the body of the toxic agent of whooping-cough. He also thinks that the longer the period of incubation (*i. e.*, the greater the resistance of the system) the greater the infection, and the severer and more prolonged will be the sickness; while the shorter the incubation the milder the disease and the more brief the period of its duration.

If the value of the conclusions drawn from these two observations can be verified by the observations of others, the prospect of arresting the disease by the prompt application of bactericidal agents would seem more encouraging than such efforts in the past have proved to be.

Statistics of Revaccination.—SAINT-YVES MÉNARD (*Revue Mensuelle des Maladies de l'Enfance*, March, 1899, p. 144) gives a suggestive table compiled from various French sources to show the proportions of positive results obtained by revaccination at different ages. From six to ten years (Toledano), 17.6 per cent.; at ten years (school statistics), 15 to 18 per cent.; at twenty years (military statistics), 50 per cent.; from twenty to forty years (this and the following from the statistics of La Salpêtrière), 60 per cent.; from forty to sixty years, 74.2 per cent.; from sixty to eighty years, 82.9 per cent.; from eighty to one hundred years, 88.5 per cent.

These figures clearly show that vaccinal immunity gradually disappears with time; at the age of six years it has already ceased in one-sixth of the cases. The practice of revaccinating about the seventh year is thus shown to be founded on rational grounds.

The popular opinion that elderly persons have no need of being revaccinated is shown by these statistics to be a dangerous one. Revaccination after the age of sixty has been successful eight or nine times out of ten. It is therefore evident that revaccination is most important with the aged, then in turn with adults, young people, and finally children.

Alcoholic Pseudo-Meningitis.—AUSSET (*Société Centrale de Médecine du Nord*, February 24, 1899) reports the observation of a wet-nursed infant of two months, which presented symptoms very closely simulating meningitis. The temperature was 102.5°, the anterior fontanelle bulging; there was also stiffness of the neck and some diarrhœa. Headache was apparently present, for the child cried frequently and wrinkled the forehead. These symptoms appeared quite abruptly three days before the reporter was called. The diagnosis lay between meningitis, influenza (which was prevalent at the time) and a pseudo-meningitis. Intermittency of pulse, sighing respiration, and vomiting were later symptoms. At this time the child's nurse was obliged to leave, and it was learned from another domestic that she had been in the habit of becoming intoxicated every day. After the change to a new nurse the symptoms persisted for seven or eight days, and then gradually subsided. The author attributes the condition to acute alcoholism produced by the nurse's milk.

SURGERY.

UNDER THE CHARGE OF
J. WILLIAM WHITE, M.D.,
PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE UNIVERSITY HOSPITAL;
ASSISTED BY
ALFRED C. WOOD, M.D., AND C. L. LEONARD, M.D.,
INSTRUCTOR IN CLINICAL SURGERY, UNIVERSITY OF PENNSYLVANIA; ASSISTANT SURGEON, UNIVERSITY HOSPITAL.
ASSISTANT INSTRUCTOR IN CLINICAL SURGERY IN THE UNIVERSITY OF PENNSYLVANIA.

The Value of Erosion and Excision in the Treatment of Tubercular Disease of the Joints in Children.—MAYLARD (*The Edinburgh Medical Journal*, June, 1899) has made a careful résumé of the results which he has obtained in the past ten years in the treatment of tubercular joints in children by erosion and excision, eliminating from his observations all cases of recent date and using only those in which he was able to obtain the remote results by examination.

He found that in no case did erosion produce shortening of the limb due to interference with its growth. On the other hand, such shortening was frequent after excisions, with a retardation in development at a distance from the seat of operation. Thus, in excision of the elbow-joint there was generally more motion obtained and less tendency to ankylosis, but in contrast to the result from erosion the development of the limbs was retarded; the hands were small and weak, so that the patient, although having better motion at the elbow, had less strength in the hand, and consequently there was a less valuable utilitarian result. He, therefore, unhesitatingly recommends erosion in preference to excision in children, and believes the practice is the more imperative the younger the child.

Tuberculosis of the Knee and Its Relation to the Development of the Limb.—LEUSDEN (*Deut. Zeit. f. Chir.*, April, 1899) gives a résumé of thirty-four cases, the careful clinical study of which, with a study of the literature of this subject, led him to the following conclusions:

1. The most complete and valuable aid in determining the condition of any portion of the skeleton is a Röntgen-ray examination.

2. In chronic tuberculosis of the knee-joint occurring during the period of development, so long as it remains in the stage of fluorescence shortening of the femur on the affected side is rare, while lengthening is frequent.

3. If this increase in development is followed later by a shortening the diagnosis is doubtful; at least this is a rare occurrence.

4. The lengthening takes place in the shaft of the femur, and is chiefly due to increased development in the lower epiphysis of the femur.

5. The cause of this increased development is found in an increased developmental irritation acting from the diseased joint upon the epiphyseal cartilage.

Phlegmon Ligneux of the Neck.—A phlegmonous condition of the neck that so simulates malignant diseases as to make the differential diagnosis difficult has been described by Reclus. KUSNETZOFF (*Arch. f. klin. Chir.*, 1899, Band lviii. Heft 3) reports a case and reviews the literature of the subject. The phlegmon develops from the deep tissues of the anterior or lateral portion of the neck, and gradually spreads out in all directions The enlargement takes place without pain, marked fever, or any noticeable disturbance of the general system. It takes weeks or months before it softens or suppuration takes place. It is characterized by no typical symptoms, and there is no involvement of the skin. The swelling restricts motion, but heat and pain are not present. After a period of four, five, or six weeks œdema of the skin occurs. Small foci of suppuration are found distributed throughout the indurated mass, but their opening and evacuation do not result in a cure, except after a slow progress of disintegration.

The etiology of this phlegmon is unknown, and until its character and the source of infection that produce it are better understood treatment will be of little avail, and its true character can only be recognized by the course its development takes and its final benignity.

An Improvement in Cheiloplasty.—The results of this operation have been satisfactory in many respects. The contraction of the lip operated upon has been overcome by various methods for the formation of plastic flaps, yet there has in all these operations been a defect from the cosmetic stand-point. The red margin of the lip has been deficient in some operations, in others one lip has been made shorter than the other.

SILBERBERG (*Cent. f. Chir.*, May 27, 1899) overcomes these drawbacks by a slight modification of the incision. When the incision for either of the generally employed plastic operations reaches the outer margin of the lip at the angle of the mouth, he carries it along the outer border of the lip, opposite to the one in which the defect is, for a sufficient distance to permit it to replace the defect of the other lip. When the closure of the defect has been accomplished by the plastic operation the red margin of the lip is found to have been equalized on both lips, the freed portion of the sound lip having been brought around to form the mucous covering of the defective.

The Surgical Treatment of Ascites.—Experiments upon animals and cases recently reported, where the portal circulation has been established by forming a collateral circulation between the abdominal parietes and the mesentery, by producing adhesions between the peritoneal surfaces, have lately been brought forward by Weir.

TILMANN (*Deut. med. Woch.*, 1899, No. 18) reviews the literature of the